

bar, and more preferably a pair of cross bars, are supported span-wise between the siderails. A bracket member is disposed at each end of at least one of the cross bars which allows the cross bar to be repositioned along the siderails as may be needed.

[0008] In one preferred embodiment each bracket member further includes a locking pin which is disposed for linear, sliding movement within a housing portion of the bracket member. The locking finger is adapted to engage within one of a plurality of predefined, spaced apart openings in the siderail to allow the bracket member to be supported at a desired position along the siderails. A biasing member continuously biases a locking pin toward engagement with one of the predefined openings in the siderail. The locking pin also includes at least one transversely extending post which forms a cam follower surface, and an elongated slot.

[0009] The housing further includes an actuating member which is supported pivotally relative to the housing so that it may be easily grasped by a user with one or more fingers and moved between locked and unlocked positions. The actuating member includes at least one camming surface adapted to engage with the post on the locking pin to urge the locking pin away from the siderail when the actuating member is moved into an unlocked position. Moving the actuating member into a locked position allows a biasing element associated with the locking pin to urge the locking pin toward and into engagement with the slot.

[0010] It is a principal advantage of the bracket mechanism of the present invention that the actuating member requires very little clearance when moved between its locked and unlocked positions. This allows the cross bar to be supported closer to the outer body surface of the vehicle without interfering with use of the actuating member. Allowing the cross bar to be supported closer to the outer body surface provides a more aerodynamic article carrier assembly and can potentially reduce wind noise and aerodynamic drag which might otherwise be caused by the cross bar being positioned at a height significantly above the outer body surface.

[0011] Further areas of applicability of the present invention will become apparent from the detailed description provided hereinafter. It should be understood that the detailed description and specific examples, while indicating the preferred embodiment of the invention, are intended for purposes of illustration only and are not intended to limit the scope of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The present invention will become more fully understood from the detailed description and the accompanying drawings, wherein:

[0013] Figure 1 is a perspective view of a portion for a vehicle showing a preferred embodiment of the present invention secured to the outer body surface;

[0014] Figure 2 is an exploded perspective view of the bracket mechanism of the present invention and a portion of one cross bar to which the bracket mechanism is secured to support the cross bar from the siderail;

[0015] Figure 3 is a perspective view of the bracket member with a portion of the side rail shown in phantom.

[0016] Figure 4 is a perspective view of just the actuating member.

[0017] Figure 5 is a simplified, side cross sectional view taken in accordance with section line 5-5 in Figure 1 showing the actuating members at each end of the cross bar in their locked positions; and

[0018] Figure 6 is a view of the cross bar of Figure 5 showing one of the actuating member in an unlocked position, and wherein the locking pin at each end support is unlocked from its respective siderail.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0019] The following description of the preferred embodiment(s) is merely exemplary in nature and is in no way intended to limit the invention, its application, or uses.

[0020] Referring to Figures 1 and 2, there is shown a vehicle article carrier 10 in accordance with a preferred embodiment of the present invention. The vehicle article carrier 10 includes a pair of siderails 12 (Figure 1) which are disposed generally parallel to one another and which are supported above an outer body surface 14 of a motor vehicle 16. Each siderail 12 is supported at its opposite ends by a pair of mounting feet 18 and each includes a channel 12a